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(54) LIQUID CRYSTAL DISPLAY DEVICE

(57) Abstract:

PURPOSE: To obtain a display device which is lightweight, thin and inexpensive by dispersing a material with high dielectric constant into color filter layers and adhesive layers, respectively, by which the greater part of the driving voltage applied between pixel electrodes and a counter common electrode is applied to a liquid crystal layer.

CONSTITUTION: This liquid crystal display device has a transparent glass substrate 1 formed with thin-film transistors(TFTs) 2 and the pixel electrodes 3 and a transparent filter substrate 7 formed with the counter common electrode 8 and is formed by transferring the color filter layer 5 on the TFTs 2 and the pixel electrodes 3 via adhesive layers 4. A material with high dielectric constant, such as barium titanate or titanate, are dispersed into the color filters 5 and the adhesive layers 4, respectively. The respective electrostatic capacitances of the color filters 5 and the adhesive layers 4, therefore, increase as compared with the case the material with high dielectric constant is not dispersed therein. Then, most of the driving voltage to be applied between the pixel electrodes 3 and

the counter common electrode 8 is applied to the liquid crystals and, therefore, there is no need for increasing the driving voltage and the ordinary TFTs are usable.

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